

U.S. Environmental Protection Agency

40 CFR Part 300

[FRL- -]

National Oil and Hazardous Substances Pollution Contingency Plan;  
National Priorities List

AGENCY: Environmental Protection Agency

ACTION: Notice of Intent to Delete Silver Mountain Mine from the National  
Priorities List.

SUMMARY: The U.S. Environmental Protection Agency (EPA) Region 10  
announces the intent to delete the Silver Mountain Mine site ("the site") from the  
National Priorities List (NPL) and requests public comment on this proposed  
action. The NPL constitutes Appendix B of 40 CFR Part 300 which is the  
National Oil and Hazardous Substances Pollution Contingency Plan (NCP),  
which EPA promulgated pursuant to Section 105 of the Comprehensive  
Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as

amended. EPA and the State of Washington Department of Ecology (Ecology) have determined that the remedial action for the site has been successfully executed.

DATES: EPA will accept comments on this proposed deletion for thirty (30) days after publication of this notice in the Federal Register. Comments concerning this site may be submitted to EPA at the above address on or before [Insert date 30 days from publication of this Notice in the Federal Register].

ADDRESSES: Comments may be mailed to: Anne D. Dailey,  
U.S. Environmental Protection Agency, 1200 Sixth Avenue, Mailstop ECL-111,  
Seattle, WA 98101.

Comprehensive information on this site is available through the Region 10 public docket which is available for viewing by appointment only. Appointments for copies of the background information from the Regional public docket should be directed to the EPA Region 10 docket office at the following address:

SUPERFUND Records Center, U.S. Environmental Protection Agency,  
Region 10, 1200 Sixth Avenue, Seattle, WA 98101

The deletion docket is also available for viewing at the following location:

County Clerks Office, Okanogan County Courthouse, 149 N. 3rd,  
Okanogan, Washington 98840

FOR FURTHER INFORMATION CONTACT: Anne D. Dailey, U.S.

Environmental Protection Agency, 1200 Sixth Avenue, Mailstop ECL-111,

Seattle, WA 98101, (206) 553-2110 or 1-800-424-4372.

SUPPLEMENTARY INFORMATION:

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I. Introduction

The U.S. Environmental Protection Agency (EPA) Region 10 announces its intent to delete the Silver Mountain Mine site in Okanogan County, Washington, from the National Priorities List (NPL) and requests public comment on this proposed action. The NPL constitutes Appendix B of 40 CFR Part 300 which is the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which EPA promulgated pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended. EPA identifies sites that appear to present a significant risk to public health, welfare, or the environment and maintains the NPL as the list of these sites. EPA and the State of Washington Department of



Ecology (Ecology) have determined that the remedial action for the site has been successfully executed.

EPA will accept comments on the proposal to delete this site for thirty (30) days after publication of this notice in Federal Register.

Section II of this notice explains the criteria for deleting sites from the NPL. Section III discusses the procedures EPA is using for this action. Section IV discusses the Silver Mountain Mine site and explains how the site meets the deletion criteria.

## II. NPL Deletion Criteria

Section 300.425(e)(1) of the NCP provides that releases may be deleted from, or recategorized on the NPL where no further response is appropriate. In making a determination to delete a release from the NPL, EPA shall consider, in consultation with the state, whether any of the following criteria have been met:

- i. Responsible parties or other parties have implemented all appropriate actions required;
- ii. All appropriate response under CERCLA has been implemented, and no further action by responsible parties is appropriate; or
- iii. The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, taking remedial measures is not appropriate.

Even if a site is deleted from the NPL, where hazardous substances,

pollutants, or contaminants remain at the site above levels that allow for unlimited use and restricted exposure, EPA's policy is that a subsequent review of the site will be conducted at least every five years after the initiation of the remedial action at the site to ensure that the site remains protective of public health and the environment. If new information becomes available which indicates a need for further action, EPA may initiate additional remedial actions. Whenever there is a significant release from a deleted site from the NPL, the site may be restored to the NPL without application of the Hazard Ranking System.

In the case of this site, the selected remedy is protective of human health and the environment. Consistent with the State Superfund Contract, Ecology has agreed to take over operation and maintenance of the site and conduct an annual inspection. EPA has conducted the first five-year review of the final remedy, and will also perform future five-year reviews.

### III. Deletion Procedures

The following procedures were used for the intended deletion of this site:

(1) All appropriate response under CERCLA has been implemented and no further action by EPA is appropriate; (2) Ecology has concurred with the proposed deletion decision; (3) a notice has been published in the local newspapers and has been distributed to appropriate federal, state, and local officials and other interested parties announcing the commencement of a 30-day public comment period on EPA's Notice of Intent to Delete; and (4) all relevant

documents have been made available in the local site information repositories.

Deletion of the site from the NPL does not itself create, alter, or revoke any individual's rights or obligations. The NPL is designed primarily for informational purposes and to assist Agency management. As mentioned in Section II of this notice, Section 300.425(e)(3) of the NCP states that the deletion of a site from the NPL does not preclude eligibility for future response actions.

For deletion of this site, EPA's Regional Office will accept and evaluate public comments on EPA's Notice of Intent to Delete before making a final decision to delete. If necessary, the Agency will prepare a Responsiveness Summary to address any significant public comments received.

A deletion occurs when the Regional Administrator places a final notice in the Federal Register. Generally, the NPL will reflect deletions in the final update following the Notice. Public notices and copies of the Responsiveness Summary will be made available to local residents by the Regional Office.

#### IV. Basis of Intended Site Deletion

The following site summary provides the Agency's rationale for the proposal to delete this site from the NPL.

##### Site Background and History

Silver Mountain Mine is an abandoned heap-leach mining operation located approximately six air miles northwest of Tonasket, in Okanogan County, Washington. The site consists of five acres of range land on a 358-acre tract of



privately owned land. The site was placed on the NPL in 1984 due to concerns about a cyanide-contaminated leachate pond, saturated mine tailings, and the potential for arsenic and cyanide contamination of the regional ground water aquifer.

The risk assessment identified arsenic and cyanide as the primary contaminants of concern. The Remedial Investigation (RI) identified and evaluated three potential sources of contaminants at the site: the heap leach pile, the unprocessed rock, and the mine drainage water. Potential exposure pathways for contaminants were identified as: on-site soils, on-site surface water, on-site ground water in a shallow aquifer, and off-site ground water in the region. During the RI, the highest arsenic levels found were in the mined material (1080 mg/kg) and in the water from a stock water tank (95 ug/l). Both arsenic and cyanide were also found in the perched shallow aquifer just at the edge of the heap leach pile.

The Feasibility Study screened twenty-three various methods of cleaning up the site. From this list, eight alternatives were developed and evaluated against criteria listed in the NCP. Alternatives ranged from capping on-site to treatment and off-site disposal.

#### Response Actions

The Record of Decision (ROD) for Silver Mountain Mine was signed on March 27, 1990, and included a number of construction elements to implement the Remedial Action. In October 1994, EPA completed an Explanation of

Significant Differences (ESD) to document changes in the Remedial Action due to unforeseen conditions encountered at the site during implementation of the selected remedy. The remedial action at the site ultimately included:

- Consolidating and contouring contaminated mine waste overburden and tailings,
- Covering and capping the site with a soil and clay cap,
- Fencing the site to protect the cap and allow seeded grass cover to develop,
- Closure of the mine entrance and diversion of the mine drainage so that it flows away from the site, and
- Deed restrictions on property to protect the cap.

Construction was completed during 1992 and the deed restrictions were finally obtained in December 1996.

The five-year review inspection occurred on May 27, 1997, and determined that the remedial objectives have been achieved. The constructed remedy is performing as designed and is controlling the risks to human health and the environment as specified in the ROD and ESD. The cap was in excellent shape with no evidence of subsidence, erosion, or animal burrows. The grass cover is well established and provides thorough coverage of the cap; minimal weeds and woody vegetation were growing on the cap. The mine entrance and mine vent were both closed and covered with rocks.



### Cleanup Standards

The remedial action cleanup activities at the Silver Mountain Mine site are consistent with the objectives of the NCP and will provide protection to human health and the environment. The cleanup standards for the heap leach pile and mine dump materials and the surrounding soils are 200 mg/kg for arsenic and 95 mg/kg for total cyanide. According to the data obtained during the construction work, the cyanide in the soils is below detection (0.5 mg/kg), and the concentrations of arsenic that remain in the areas that were cleaned up are less than 100 mg/kg. Risks at the site have been reduced below the Hazard Index of 1.0 or health based levels; and for arsenic, a human carcinogen, the cancer risk factor has been reduced below one in ten thousand.

The major source of contaminants identified in the ROD, the rock material from the mining operations (heap and mine dump), has been addressed. The mine drainage was reevaluated in the Explanation of Significant Differences and it was determined that the mine drainage did not pose an ecological threat. According to the risk assessment and amended risk assessment, the inhalation and ingestion of the contaminated soils were the major routes of exposure. The arsenic-laden waste rock from the mine was contained and capped. The cleanup also reduced the impacts to the ground water by diverting the run-on water away from the capped mine waste and by limiting potential leachate generation.

### Operations and Maintenance

The site is designed to require very little maintenance. The area is remote and the semi-arid climatic conditions suggest that only minimal maintenance is expected. The mined rock material under the cover is not expected to settle which is often the major cause of cap disturbance. The rainfall is low with an annual average precipitation of 11 inches/year which is primarily as snow and spring rain. It is expected that the Ecology personnel, per the State Superfund Contract, will be able to provide the annual maintenance with a minimal amount of work.

### Five-Year Review

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) requires a five-year review of all sites with hazardous substances remaining above the health-based levels for unrestricted use of the site. Since the cleanup of the Silver Mountain Mine site utilized containment of the hazardous materials as the method to reduce the risk, the five-year review process will be used to insure that the cap is still intact and blocking exposure pathways for human health and the environment. As indicated above, EPA has conducted the first five-year review and has determined that the remedy selected for Silver Mountain Mine remains protective of human health and the environment. For future five-year reviews, EPA will review Ecology's annual reports on the operation and maintenance at the site and as needed perform a five-year review inspection.

### Community Involvement

EPA published its Community Relations Plan in December 1987, after interviews with local residents and officials. An information repository was established at the Okanogan County Courthouse and all of the documents used to make the decision were placed there before the final Record of Decision was signed. All other reports and fact sheets were sent to the repository as they were completed. Those individuals on the mailing list were informed by fact sheet prior to construction activities on-site. No public meetings have been requested thus far.

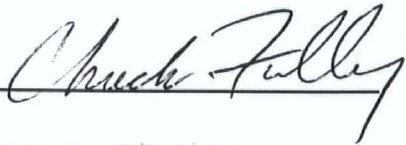
### Applicable Deletion Criteria

One of the three criteria for site deletion specifies that EPA may delete a site from the NPL if "all appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate." 40 CFR 300.425(e)(1)(ii). EPA, with the concurrence of Ecology, believes that this criterion for deletion has been met. Subsequently, EPA is proposing deletion of this site from the NPL. Documents supporting this action are available from the docket.



State Concurrence

The Washington Department of Ecology concurs with the proposed deletion of the Silver Mountain Mine Superfund Site from the NPL.



CHARLES E. FINDLEY.

ACTING REGIONAL ADMINISTRATOR

U.S. EPA Region 10

7-17-97

Date

Concurrence for NOID for Silver Mountain Mine Superfund Site

Concurrence					
Initial	<i>BS</i>	<i>AD</i>	<i>CS-L</i>	<i>KH</i>	<i>ans/for</i>
Name	<i>7/14/97</i>	Dailey	Steiner-Riley	<i>5</i> Krueger	Gearheard
Date		<i>7/10/97</i>	<i>7/10/97</i>	<i>7/12/97</i>	<i>7/15/97</i>